

WHAT IS CLAIMED IS:

1. A recombinant, double-stranded DNA molecule containing
 - a) a promoter functional in plant cells, and
 - b) a DNA sequence coding for a polypeptide having the enzymatic activity of a fructose-1,6-bisphosphate aldolase and operatively linked to the promoter in sense orientation.
2. The DNA molecule according to claim 1, wherein the DNA sequence coding for a polypeptide having the enzymatic activity of a fructose-1,6-bisphosphate aldolase is derived from a prokaryotic organism.
3. The DNA molecule according to claim 2, wherein the prokaryotic organism is *Escherichia coli*.
4. The DNA molecule according to claim 1, wherein the DNA sequence coding for a polypeptide having the enzymatic activity of a fructose-1,6-bisphosphate aldolase has at least about 60% identity with a prokaryotic DNA sequence coding for fructose-1,6-bisphosphate aldolase class II.
5. The DNA molecule according to claim 1, wherein the DNA sequence coding for the polypeptide having the enzymatic activity of a fructose-1,6-bisphosphate aldolase is a sequence capable of hybridizing with the coding region depicted as SEQ ID NO. 1.
6. The DNA molecule according to claim 1, wherein the DNA sequence coding for a polypeptide having the enzymatic activity of a fructose-1,6-bisphosphate aldolase has at least about 60% identity with the coding region depicted as SEQ ID NO. 1.
7. The DNA molecule according to claim 1, wherein the DNA sequence coding for a polypeptide having the enzymatic activity of a fructose-1,6-bisphosphate aldolase has at least about 70% identity with the coding region depicted as SEQ ID NO. 1.

8. The DNA molecule according to claim 1, wherein the DNA sequence coding for a polypeptide having the enzymatic activity of a fructose-1,6-bisphosphate aldolase has at least about 80% identity with the coding region depicted as SEQ ID NO. 1.

9. The DNA molecule according to claim 1, wherein the DNA sequence coding for the polypeptide having the enzymatic activity of a fructose-1,6-bisphosphate aldolase has the coding region depicted as SEQ ID NO. 1, or encodes the same peptide as SEQ ID NO. 1 in accordance with the degeneracy of the genetic code.

10. A transgenic plant cell containing in its genome a recombinant DNA molecule according to any of claims 1-9.

11. A transgenic plant containing plant cells according to claim 10.

12. The transgenic plant of claim 11, wherein the plant exhibits a property selected from the group consisting of increased photosynthesis rates, increased yields, increased growth rates and improved solids uniformity compared with plants that do not contain the recombinant DNA molecule.

13. The transgenic plant according to claim 11, which is a crop plant.

14. The transgenic plant according to claim 11, selected from the group consisting of corn, wheat, rice, tomato, potato, carrots, sweet potato, yams, artichoke, alfalfa, peanut, barley, cotton, soybean, canola, sunflower, sugarbeet, apple, pear, orange, peach, sugarcane, strawberry, raspberry, banana, grape, plantain, tobacco, lettuce, cassava, cruciferous vegetables, forestry species and horticultural species.

15. The transgenic plant of claim 11, wherein the plant is a potato.

16. A food product derived from the potato of claim 15.

17. The food product of claim 16, which is a french fry or a potato chip.
18. Propagation material derived from the transgenic plant of claim 11.
19. A process for increasing the photosynthesis rate in plants which comprises transforming plant cells with a DNA molecule according to any one of claims 1 to 9, and regenerating the transformed cells to produce a transgenic plant.
20. A process for increasing the yield in plants which comprises transforming plant cells with a DNA molecule according to any one of claims 1 to 9, and regenerating the transformed cells to produce a transgenic plant.
21. A process for increasing the growth rate in plants which comprises transforming plant cells with a DNA molecule according to any one of claims 1 to 9, and regenerating the transformed cells to produce a transgenic plant.
22. A process for improving the solids uniformity in plants which comprises transforming plant cells with a DNA molecule according to any one of claims 1 to 9, and regenerating the transformed cells to produce a transgenic plant.
23. In a method for the processing of potatoes into fries or chips, the improvement comprising, utilizing a potato that overexpresses the fda transgene providing a higher solids uniformity in such potato.